

# Understanding Changes in Grape Composition By Measuring Moisture Content

## Example Data from Two Vineyard Blocks

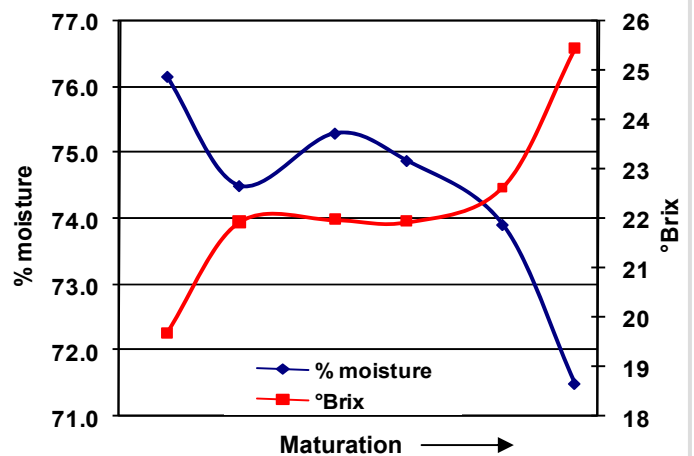
Two vineyard blocks were monitored during maturation for grape composition and grape moisture content. Grape phenolic composition was measured using ETS grape extraction and analysis procedures. Dramatic changes in °Brix, anthocyanins and tannin were observed during “hang time”. Grape moisture content also changed significantly. Many of the changes in grape composition could be directly related to concentration and dilution effects of grape water content



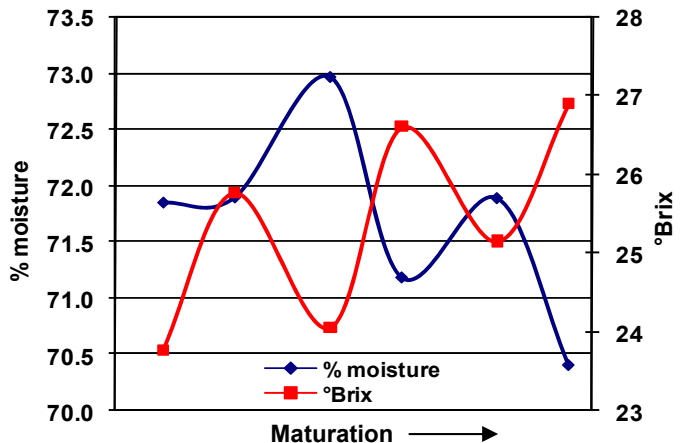
## 1 - Moisture Content and Brix

Brix was strongly affected by grape moisture content. Other than the initial increase in sugar in Block B, most of the changes in °Brix could be related to variation in grape water content.

Block A — Example Data



Block B — Example Data

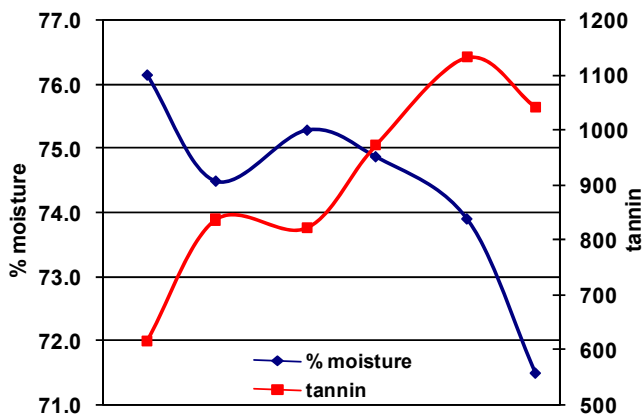


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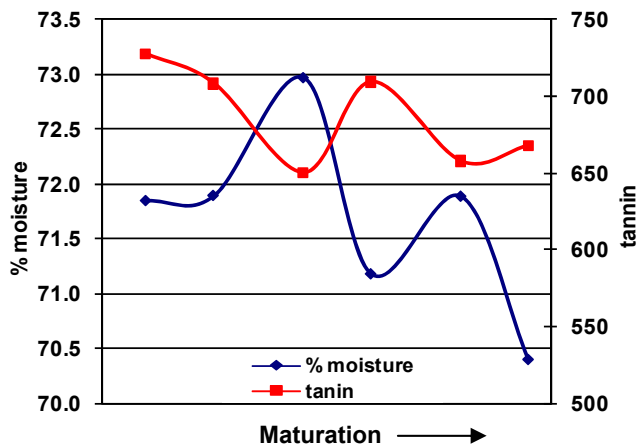
## 2 - Moisture Content and Tannin

Tannin concentration was also quite moisture sensitive. In Block A, only the last measurement decreased despite potential concentrating effects of decreasing moisture content. In Block B, an initial decline in tannin is apparent during a time of no change in moisture content, probably due to seed ripening.

Block A — Example Data



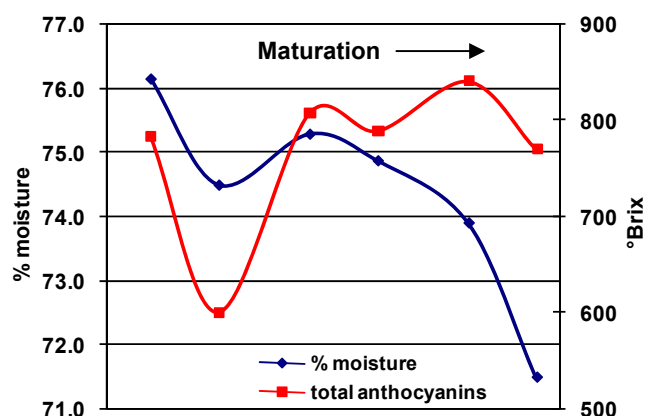
Block B — Example Data



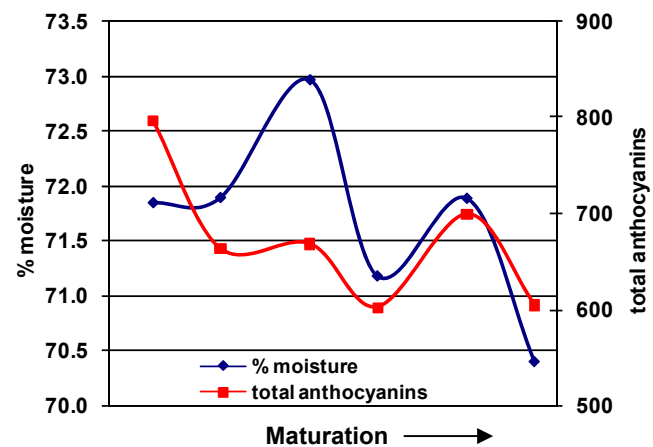
## 3 - Moisture and Anthocyanin

Grape moisture content was not the primary factor influencing grape anthocyanin concentration. While a decrease in moisture content caused Brix and tannin to increase through concentration, anthocyanin concentration decreased when water content decreased. It is likely that environmental factors that favor water loss also influenced anthocyanins. High temperatures are known to cause increased anthocyanin degradation and increased water loss.

Block A — Example Data



Block B — Example Data



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